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ABSTRACT

The relationship between locus of control orientation and academic achievement has recently been questioned. To investigate the relationship between measures of locus of control, intelligence, and academic achievement, 58 normal and 50 delinquent 15-year-old adolescents were administered the Peabody Vocabulary Test, Nowicki-Strickland Locus of Control Scale for Children, and the Wide Range Achievement Test in reading, spelling, and arithmetic. Academic achievement was significantly related to locus of control only for normal adolescents, while intelligence test scores were significantly related to locus of control for both normal and delinquent groups, suggesting that locus of control is a function of intelligence rather than achievement. The finding that locus of control was ineffective in discriminating between normal and delinquent adolescents questions the utility of the locus of control construct for identifying clinical populations. (Author/NRB)

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# Some Misgivings About Locus of Control Orientation and its Relationship to Intelligence, Academic Achievement, and Delinquency

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Some Misgivings About Locus of Control Orientation and its Relationship to Intelligence, Academic Achievement, and Delinquency

A substantial body of psychological research has been conducted concerning the expectancy of locus of control, which has its antecedents in the social learning theory presented by Rotter (1966). Locus of control has been broadly conceived as a generalized belief that certain factors control the events of one's life. The construct has been conceptualized as a bipolar continuum ranging from a belief in an external locus of control to a belief in an internal locus of control. Consequently, internals are most apt to perceive themselves as masters of their own fate, while externals hold a cynical view of their own power to influence their personal destinies (Rotter, 1966).

There has been a burgeoning of research in which locus of control has been related to a wide range of phenomena including decision time on discrimination tasks (Rotter & Mulry, 1965), task persistence (Waters, 1972), ethnic group affiliation (Tin-Yee Hsieh, Shybut, & Lotsof, 1969), drug abuse (Goss & Morosko, 1970; Nwoicki & Hopper, 1974; Tohsenow & O'Leary, 1978; Smithyman, Plant & Southern, 1974) and a host of psychophysiological processes (Hammond, 1977; Lacey, 1967). More recently, research has related locus of control orientation to academic achievement in children (Crandall, Katkovsky, & Crandall, 1965; Matheney & Edwards, 1974; Nowicki, 1971; Nowicki & Roundtree, 1971; Nowicki & Strickland, 1973). In fact, Matheney and Edwards (1974) have demonstrated that improved academic performance concomitantly produced greater internality in young school children.

Much research has been generated purporting to relate external locus

of control to various clinical disorders (Sapwell, 1965; Chilton & Markle, (1972; Cromwell, Rosenthal, Chakow, & Zahn, 1963). Recent research has emerged, however, which has questioned the utility of the locus of control construct for clinical populations. After an exhaustive review of research on locus of control studies in clinical populations, Rohsenow and O'Leary (1978) concluded that results of research which compared locus of control orientation of clinical populations to that of normal controls remained at its best equivocal. This review, however, was limited primarily to research in adult populations manifesting various psychopathologies. Whether the locus of control scale is sensitive in discriminating between normal and disturbed populations of children remains unclear.

The relationship between locus of control orientation and academic achievement has been recently questioned. According to Nowicki (1971) locus of control is related to academic achievement and is independent of intelligence. Little and Kendall (1978), for poorly achieving delinquent adolescents, found no clear relationship between locus of control scores and a host of achievement indices. However, prior to controlling for IQ in their analysis, Little and Kendall (1978) obtained significant correlations between locus of control measures and academic achievement with probability levels similar to those reported in previous research. Little and Kendall (1978) concluded that locus of control orientation for these delinquent adolescents was obviously related to intelligence rather than academic achievement although no correlations for IQ and locus of control are cited in their study. The Nowicki-Strickland Locus of Control Scale utilized in their research, however, has been reported to relate only to achievement and hypothesized not to relate to intelligence (Nowicki&

Strickland, 1973). Thus the relationship among measures of locus of control scores, measures of intelligence, and achievement indices remains unclear.

One means of evaluating the utility of the locus of control construct for disturbed youth is to compare normal adolescents with those adolescents identified as markedly different from normal. That is, if the locus of control construct is useful in discriminating juvenile delinquents from normal youth, one would expect adolescents who have been chronic underachievers and diagnosed as delinquent to be more externally controlled than their normal peers.

The present study had two major objectives. One purpose of the present study was to evaluate further the relative utility of the locus of control construct by comparing a group of adolescents designated as having those characteristics which have been generally associated with externality to a group of normal adolescents on the locus of control measure. The second purpose of the present study was to examine further the relationship among locus of control scores, measures of intelligence, and achievement indices in both normal and delinquent adolescents.

## Method

### Subjects.

Subjects were 22 white-adolescent females with a mean age of 15.62 years and 28 white-adolescent males with a mean age of 15.94 years, residing in a residential treatment center. All of the adolescents in this group were placed into this residential treatment center as a result of juvenile court decisions and a history of difficulty in coping with the

regular school program. Twenty-five white adolescent females with a mean age of 15.45 years and 33 white adolescent males with a mean age of 15.19 years, from a nearby high school served as normal controls. The normal controls, who were randomly selected from a suburban Atlanta school, were described as having a continued history of satisfactory academic achievement and no record of any psychological disturbances. All adolescents in the study were from middle-class intact families living in the suburbs of 2 large metropolitan cities (Hollingshead Index Classes II, III, and IV).

The mean ages and SES for the two groups of children were not significantly different. The mean IQ scores, derived from the Peabody Vocabulary Test (Dunn, 1965) did not differ from the two groups when analyzed by a one-way analysis of variance. Locus of Control was measured by the Nowicki-Strickland Locus of Control Scale for Children (Nowicki & Strickland, 1973), and was scored externally. Academic achievement was evaluated utilizing a composite measure of the wide Range Achievement Test Scores on reading, spelling, and arithmetic (Jastak, Bijou & Jastak, 1965).

All subjects were tested individually by the same examiner, and standard procedures were followed.

## Results

The correlations obtained between measures of locus of control, academic achievement, and IQ for both males and females in both groups of adolescents are presented in Table 1.

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Insert Table 1 about here

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Pearson-product-moment correlations were computed for achievement IQ, and locus of control measures. For the normal group, all correlations obtained were significant for both sexes. No significant correlations occurred for either sex for the delinquent group of adolescents on the dependent measure of achievement.

A 2(Behavioral Condition) x 2(Sex) analysis of variance comparing locus of control measures indicated that there were no significant main effects for either behavioral condition or sex. No significant interactions occurred in the analysis.

## Discussion

The results indicated that intelligence was related to locus of control scores for both groups of normal and delinquent adolescents. Furthermore, the finding that locus of control orientation was related to achievement, only for the normal group of adolescents appears to be inconsistent with the speculation presented by Nowicki and his colleagues (Nowicki & Roundtree, 1971; Nowicki & Strickland, 1973) which suggests that locus of control relates solely to achievement and not to intelligence. The present research lends support to the conclusion of Little and Kendall (1978) that the locus of control scale is related to intelligence rather than achievement for delinquent and normal adolescents. However, the locus of control scale was ineffective in discriminating between normal and delinquent adolescents. This finding casts doubt on the utility of the locus of control construct for identifying delinquent adolescents.

An alternative interpretation for the findings of the present study might also be that since locus of control is related to a number of

diverse indices such as measures of achievement and intelligence, it is as many believe a generalizable construct and is consequently incapable of discriminating between normal and clinical populations.

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## Footnotes

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Table 1

Correlation Coefficients Between Locus of Control Orientation, Achievement Indices, and Intelligence Test Scores for Normal and Delinquent Adolescents

| Group | | Achievement Indices | Intelligence |
|---|---|---|---|
| Normal | (n) | | |
| Males | (33) | -.62** | -.76** |
| Females | (25) | -.60** | -.66** |
| Delinquent | | | |
| Males | (28) | -.27 | -.77** |
| Females | (22) | -.23 | -.66** |

**$p < .01$.